

# **EXECUTIVE BRANCH IT BUDGET ADVISORY**

**APRIL 2008**



**King County**

**OFFICE OF  
INFORMATION  
RESOURCE  
MANAGEMENT**

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## **Preface**

April 22, 2008

At the March Executive Cabinet meeting, I committed to develop an advisory package covering different areas of information technology that present opportunities for cost reduction. My intent with the attached IT Budget Advisory is to assist the Executive Branch as a whole in focusing on areas of opportunity to reduce the 2009 CX budget deficit in front of us.

The IT Budget Advisory identifies twenty areas of potential cost reduction opportunities to examine and consider, including:

- Desktop computing
- Computing infrastructure
- Printing
- IT contracts
- Telecommunications

The discussion of each opportunity includes advice for your consideration. At the end of the IT Budget Advisory are instructions for submitting your findings and your proposed actions to me and to the Budget Office (Steve Fields) for our review to ensure there are no negative impacts on other agencies resulting from cost cutting opportunities being proposed.

I want to support you as you validate the opportunities identified in the IT Budget Advisory, and I look forward to working together as we find creative ways to reduce the budget deficit. Please let me know how I can be of further assistance to you.

David Martinez  
Chief Information Officer

## Section 1: Opportunities for Consideration

### A. Desktop Computers

#### 1. Defer Equipment Replacement (Desktop Computers)

**BACKGROUND** Desktop computers in the Executive Branch are typically on a three to four year replacement cycle. This planned cycle does not include an assessment of whether the age of the computer is compromising the user's ability to get their work done. In the past the only choice for replacement of desktop computers was another desktop computer. Now thin clients are a significantly less expensive alternative to desktop computers and will be available in 2008.

**BUSINESS OBJECTIVE** By spending less on desktop computers and preserving the current level of desktop functionality, costs can be reduced. Avoid the standard practice of replacing equipment simply based on a pre-determine cycle when desktop computers are adequately functioning.

**DISCUSSION** The investment in desktop computers is significant and the regular replacement of this equipment is expensive. Replacing desktop computers when failing or cannot run current business applications is a reasonable business practice. Replacing desktop computers according to a standard replacement time table may be a luxury the county can not afford. When a desktop computer must be replaced, thin client technology using a centralized hosting service for desktop applications is the preferred approach, because it is a significantly less expensive than a desktop computer. A standard configuration for desktop computers will be established by IT Reorganization to be used when desktop computers are approved for purchase.

**ADVICE** Defer equipment replacement funds for desktop computers for the remainder of 2008, 2009 and 2010. When the purchase of an unplanned desktop computer is needed, approval for the exception will be made by the CIO.

##### Options

- Extend the equipment replacement period to five years, instead of the current three or four year period.
- Purchase thin clients instead of desktop computers whenever possible.
- Establish a contingency fund of 20% of the projected equipment replacements in 2009-2010 for necessary desktop computer purchases.

**OPPORTUNITY** Replacement costs for PCs range from \$800 – \$1,500. Projected savings by deferring equipment replacement in 2009 - 2010 is the

number of PCs identified for replacement in those years multiplied by the expected replacement cost.

Thin client per device costs are \$510 in the 1<sup>st</sup> year; and annually thereafter it is \$118 for service and \$45 for funding equipment replacement. Projected savings are \$770 per device in the 1<sup>st</sup> year, and \$202 per device annually thereafter (or \$157 per device if equipment replacement funding is accrued annually). Overall, the total cost of ownership for thin clients is significantly more favorable than for desktop computers.

**WORK FORCE  
AFFECT**

With a thin client the need for staff support is reduced compared to the management, up keep, and support for desktop computers.

## **2. Have No More Than One Computer Per Person**

**BACKGROUND**

Some county personnel have both desktop and laptop computers. This allows them to work at a desktop computer while in the office and use a laptop when away from the office. The result is increased costs for initial purchase, equipment replacement, and on-going support.

**BUSINESS OBJECTIVE**

Reduce equipment replacement, licensing, and support costs by changing the business practice that allows more than one computer for county personnel needing a computer to do their job.

**DISCUSSION**

There may be creative ways to meet the business need for having a computer at work and one for outside the office. Understanding the business need and the available technology options is key to eliminating duplicate equipment. A common complaint of exclusively using a laptop is the small screen and keyboard. Laptop docking stations allow for an external keyboard and monitor to be used so the user experience in the office is just like a desktop. If the need for mobile computing is only to access county email, a Blackberry or instructions on how to use Web Outlook Access may be sufficient.

**ADVICE**

Eliminate the practice of having more than one computer per person for those who need computers to accompany them outside the office.

Options

- Provide a laptop computer with docking station as the preferred choice to those whose work requires a computer both at the office and outside the office.
- Provide a thin client or desktop computer to staff and managers who work predominately in the office.
- If only email access is needed outside the office, options to consider are the Blackberry Service or Outlook Web Access (OWA).

- Re-deploy freed up desktops/laptops to other county personnel needing replacement equipment or keep this equipment as spares.

**OPPORTUNITY** New and replacement PCs range from \$800 – \$1,500 and laptops range from \$2,200 – \$2,800. For each computer that can be eliminated savings include projected equipment replacement costs or any planned purchases for additional desktops/laptops, plus licensing for some business applications.

**WORK FORCE AFFECT** The need for staff support is reduced when the number of desktop and laptops to be supported is reduced.

### 3. Enforce Power Management

**BACKGROUND** Desktop computers and their monitors are voracious consumers of electricity, and their energy use is soaring. The average desktop computer consumes 600 kWh (kilowatt-hours) annually. According to the U.S. Agency of Energy, up to 400 kWh of that electricity is wasted, because most desktop computers are running at full power when no user is present. While most desktop computers have energy-saving settings such as standby, hibernate and shutdown, over 80% of desktop computer users disable these low-power settings.

**BUSINESS OBJECTIVE** Lower electricity costs by lowering power consumed by desktop computers – this will also result in lowering green house gas production.

**DISCUSSION** Previously, industry best practice advised that desktop computers be left turned on all the time, because powering up and down was hard on component parts. With advances in technology, increases in the cost of power, and environmental concerns about power generation, best practice now is to power off computers when they are not needed for a period of time. Another practice to consider is the use of thin clients, since these devices draw less than one-fourth the electricity of a desktop computer.

**ADVICE** Ensure all PCs have Verdiem installed and are managed according to the following power management standards: turn the monitor off after 15 minutes of inactivity and put the computer into sleep mode after one hour of no activity.

**OPPORTUNITY** Use of Verdiem on about 7,350 desktop computer in the Executive Branch will save the county approximately \$93,000 annually by not consuming 1,329,860 kilowatt hours of electricity every year. This will also reduce green house gases by more than 1,225,000 pounds each year.

## B. Computing Infrastructure

### 4. Defer Equipment Replacement (Servers)

<b>BACKGROUND</b>	Servers in the Executive Branch are typically on a four year replacement cycle. This planned cycle does not include an assessment of whether the age of the server is compromising the applications that run on it or take into consideration future maintenance costs to retain the server.
<b>BUSINESS OBJECTIVE</b>	IT Reorganization is focused on reducing the number of servers that the county owns and manages. To do this, new and replacement servers should only be purchased when absolutely necessary and the life of existing servers should be extended until a determination is made by the CIO regarding consolidation of specific servers.
<b>DISCUSSION</b>	IT Reorganization is focused on server consolidation through virtualization. Candidates for virtualization will be identified in 2008. The conventional wisdom is that at least 60% of an organization's servers can be virtualized including test and development servers which are typically strong candidates for virtualization. When servers are virtualized on new hardware in a centralized service (available in 2009), existing server assets should be considered for other uses instead of being sent to surplus.
<b>ADVICE</b>	<p>Defer equipment replacement funds for server upgrade purchases in 2009 and 2010. When the purchase of an unplanned server is needed, approval for the exception will be made by the CIO.</p> <p><u>Options</u></p> <ul style="list-style-type: none"><li>• When possible extend the equipment replacement cycle for servers by at least one year or until vendor end of life.</li><li>• Establish a contingency fund of 20% of the projected equipment replacements in 2009-2010 for unplanned server purchases.</li></ul>
<b>OPPORTUNITY</b>	Replacement costs for servers range from \$3,500 – \$15,000. Projected savings by deferring equipment replacement in 2009-2010 is the number of servers identified for replacement in those years multiplied by the expected replacement cost.
<b>WORK FORCE AFFECT</b>	The need for staff support is reduced when the number of servers to be supported is reduced.

## 5. Reduce Computing Infrastructure Costs

<b>BACKGROUND</b>	The county has equipment that is used by county personnel to store and manage their business documents. Over the years this equipment inventory has grown to over 200 file servers, each having a vendor maintenance agreement and technology staff to support and manage them. A significant opportunity exists to reduce the total cost of ownership for this equipment by at least 50% through consolidation.
<b>BUSINESS OBJECTIVE</b>	IT Reorganization is focused on reducing hardware and software owned and managed by the county for the purpose of document management. To do this, new and replacement hardware and software should only be purchased when absolutely necessary and the life of existing equipment should be extended until a determination is made by the CIO regarding server consolidation.
<b>DISCUSSION</b>	IT Reorganization will put in place an Enterprise SharePoint Service in 2009 for consolidation of file servers. This service will provide the Microsoft SharePoint collaboration tool and centralized file storage.
<b>ADVICE</b>	<p>Defer purchasing additional file server equipment and software and replacing file server equipment in 2009 and 2010. When the purchase of unplanned file server equipment is needed, approval for the exception will be made by the CIO.</p> <p><u>Options</u></p> <ul style="list-style-type: none"><li>• When possible extend the equipment replacement cycle for file servers by at least one year or until vendor end of life.</li><li>• Establish a contingency fund of 20% of the projected equipment replacements in 2009-2010 for necessary file server purchases.</li><li>• Plan to utilize the Enterprise SharePoint Service when it becomes available in 2009.</li></ul>
<b>OPPORTUNITY</b>	Typical spending on computer equipment for managing agency documents ranges from \$10,000 - \$20,000 for replacements and maintenance. This can be saved by deferring purchases for new and replacement file servers. By moving to the Enterprise SharePoint Service (when available) overall costs would be lower than the current computing infrastructure and practices in place today.
<b>WORK FORCE AFFECT</b>	The need for staff support is reduced when the number of file servers to be supported is reduced.



## 6. Reduce Network Access Infrastructure Complexity

<b>BACKGROUND</b>	The county has a centrally managed computing infrastructure for user accounts and passwords that provides access to the county's network and email. When this infrastructure was established, several agencies insisted that they manage their own infrastructure for user accounts. The result is duplicated effort and computing infrastructure. Best practice indicates that the infrastructure required for agency management of user accounts costs more to operate and may not be necessary to meet business and technical requirements. An opportunity exists today to re-examine business practices to determine if the current solution is still valid.
<b>BUSINESS OBJECTIVE</b>	Rely on the centrally managed infrastructure for user account management when it can meet the agency's business requirements and reduce hardware, software and support costs.
<b>DISCUSSION</b>	The county currently has a centrally managed active directory forest called KingCounty. Within the KingCounty forest there are four child domains. One centrally managed domain called KC includes user accounts for every county employee. There are three other child domains for Executive Branch departments, including DPH, DNRP, and DOT. DAJD has recently requested its own child domain. By eliminating these child domains it is possible to reduce fixed on-going management overhead, reduce hardware required for each domain, reduce possible points of failure when communicating between domains, and simplify technical complexity in managing user accounts, such as moving a security principal between domains and using group policy and access control between domains.
<b>ADVICE</b>	Consolidate agency infrastructure for user account management into the centrally managed service and do not fund hardware, software and licenses for agency user account management.
<b>OPPORTUNITY</b>	For agencies with child domains costs can be reduced by eliminating the hardware, software and licenses that was required for this infrastructure. This currently includes DPH, DNRP, and DOT, and a pending request from DAJD. For agencies with separate forests, consolidation into the KingCounty forest may also reduce costs.
<b>WORK FORCE AFFECT</b>	The need for staff support is reduced when this infrastructure is simplified and centrally managed.

## 7. Explore Consolidating Database

<b>BACKGROUND</b>	Databases for individual, work group and agency use have proliferated as database technology has become more accessible. This has led to county personnel having to support, manage and work with an increasing number of databases. An opportunity exists to evaluate the need for each of these databases and to determine ways to reduce support costs, including work force, hardware, software, maintenance and licensing.
<b>BUSINESS OBJECTIVE</b>	Reduce the number of databases and as a result reduce the costs associated with on-going support and management of databases managed by agency personnel.
<b>DISCUSSION</b>	Databases are often used as an analytical tool to provide information this is not readily available from other systems. Information that was needed at the time a database was developed may no longer be needed, or may now be available or could be made available from other systems. Explore opportunities to consolidate similar databases, use source systems to provide the information, and eliminate databases that provide limited or no business value. If possible, repurpose equipment and storage used to support databases that are no longer needed and eliminate licenses.
<b>ADVICE</b>	Explore ways to consolidate and eliminate databases and continue to meet business needs. Determine if the information provided by these databases is still valid for the business.
<b>OPPORTUNITY</b>	Reduce costs for hardware, software and licenses for agency databases that can be eliminated.
<b>WORK FORCE AFFECT</b>	The need for staff support is reduced when the number of databases is reduced.

## C. Printing

### 8. Reduce Printing Costs

**BACKGROUND** The county has too many printers resulting in higher costs than necessary for maintenance and supplies. Personal printers proliferated to meet the need for secure printing that was not available on older generations of network printers. The many types of printers in use today require specific vendor maintenance agreements, specialized ink and toner, and staff support. An opportunity exists to reduce printing costs by replacing existing printers with leased IKON printers offered through the county's master contract.

**BUSINESS OBJECTIVE** Reduce the cost of supplies, maintenance, and power consumption for copying, printing, faxing and scanning through use of multifunction printers that can be shared by workgroups, sections, divisions, and agencies.

**DISCUSSION** Personal printers are scattered throughout the Executive Branch. Although toner and ink cartridges for these printers may be small expenditures on an individual basis, these small costs add up for the aggregate; there is a potential for cost savings when shared network printers are used instead. Network printers is an area of opportunity for volume discounts and becomes most beneficial when the county operates as an entity rather than on an agency basis. By eliminating printers that are not part of the IKON contract, agencies can take advantage of the cost savings available from this master contract.

**ADVICE** Replace existing printers with the standard models available on the county's master contract for IKON printers and make these available on the network to workgroups, sections, divisions, and agencies. Eliminate purchases for personal printers and do not set aside funds for personal printer supplies. When the purchase of an unplanned printer is needed, approval for the exception will be made by the CIO.

#### Options

- Use the mailbox and password feature on the IKON printer to securely print documents containing confidential or private information.

**OPPORTUNITY** Existing supplies, maintenance, and support costs for printers, copiers and faxes can be reduced by leasing IKON printers available through the master contract. Typical rates are less \$.008 per page for black and white (after the first 15,000 copies) and \$.04 per page for color printing plus a monthly fee of \$330/month for black and white and \$425/month for color that includes equipment lease, toner, maintenance and repair. (The monthly lease rate can be adjusted depending upon the desired monthly page allowance.) The replacement cost for the most commonly used personal printer model in the county is \$699 and its toner costs \$127 per cartridge for about

2,000 pages.

**WORK FORCE  
AFFECT**

The need for staff support is reduced when the number of printers to be supported is reduced.

## **9. Reduce Color Printing and Copying**

**BACKGROUND**

With the availability of color printers and use of color in documents, color printing and copying has increased without much thought about how much it costs. An opportunity exists to make county personnel aware that using black and white instead of color printing and copying is a small but visible step everyone can take to reduce county expenditures.

**BUSINESS OBJECTIVE**

Making color copies and printing color documents only when absolutely necessary will reduce printing costs.

**DISCUSSION**

County personnel need to be made aware of the substantially higher cost of color copying and printing, and steps need to be taken to conservatively use color copying and printing. Consider:

- Setting up black and white printers as default printers,
- Setting up color printers to default to black and white printing, and
- Communicating with county personnel about the difference in cost between color and black and white printing

**ADVICE**

Print and copy in black and white as the norm in 2009.

**OPPORTUNITY**

Color printing and copying is significantly more expensive than black and white printing. For example, color copies and prints under the IKON contract costs five times more than black and white. Most color printing and copying for internal county use is suitable for black and white printing.

## D. IT Contracts

### 10. Obtain Volume Discounts through Multi-Year and Master Contracts

<b>BACKGROUND</b>	Use of individual contracts by agencies to purchase the same IT goods and services as other agencies has resulted in higher costs to the county for vendor and contract administration. An opportunity exists to achieve cost savings through volume discounts and multi-year contract terms when the county contracts as a single entity for IT goods and services.
<b>BUSINESS OBJECTIVE</b>	Significant cost savings for the county are available by using master contracts with volume discounting and multi-year contracts.
<b>DISCUSSION</b>	Individual contracts for IT support, maintenance, purchase, off-site data media storage and other items have reduced the county's opportunity to obtain volume discounts, simplify IT procurement, and standardize IT products and services. Annually renewable contracts have also increased contract administration by requiring a contract amendment to extend contract terms for another year.
<b>ADVICE</b>	<p>Consolidate individual contracts into multi-year master contracts with multi-year pricing for IT support, maintenance, purchase, off-site data media storage, and other items.</p> <p><u>Options</u></p> <ul style="list-style-type: none"><li>• Renegotiate annually renewable contracts to a multi-year term.</li><li>• Establish new contracts as multi-year with multi-year pricing discounts.</li></ul>
<b>OPPORTUNITY</b>	Costs can typically be reduced by 5% - 10% when contracting for a five year term instead of a one year term. Volume discounts typically range from 3% - 15%.
<b>WORK FORCE AFFECT</b>	The contract administration burden is reduced when annually renewable contracts are eliminated. Master contracts reduce work force effort for procurement and contract negotiation.

### 11. Reduce Vendor Support Costs (Equipment)

<b>BACKGROUND</b>	Business needs should determine the level of vendor support for computing equipment. As the business changes over time, the level of support may no longer meet this need. By re-examining these support levels to ensure alignment with the business need, an opportunity may exist to reduce support costs.
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<b>BUSINESS OBJECTIVE</b>	Aligning vendor support levels for equipment to what is needed by the business will ensure that county agencies are not paying for services they do not need or want.
<b>DISCUSSION</b>	Vendor support and maintenance contracts for equipment can be established for various levels of coverage (such as 7x24x365 or 8x5) and response times (such as 12 hour or 3 day) depending upon business need. This level is established at the time of purchase and is typically not re-evaluated to determine if the vendor support level continues to be appropriate. An opportunity for cost reduction exists when vendor support levels for equipment are in excess of what the business needs.
<b>ADVICE</b>	Evaluate equipment service contracts for coverage and response times and take action to align service contracts with the business need.
<b>OPPORTUNITY</b>	Expected savings range up to 50% for each equipment vendor support contract.

## **12. Reduce Vendor Support Costs (Business Applications)**

<b>BACKGROUND</b>	Business needs should determine the level of vendor support for business applications. As the business changes over time, the level of support may no longer meet this need. By re-examining these support levels to ensure alignment with the business need, an opportunity may exist to reduce support costs.
<b>BUSINESS OBJECTIVE</b>	Aligning vendor support levels for business application to what is needed by the business will ensure that county agencies are not paying for services they do not need or want.
<b>DISCUSSION</b>	Vendor support and maintenance contracts for business applications can be established for various levels of coverage (such as 7x24x365 or 8x5) and response times (such as 12 hour or 3 day) depending upon business need. This level is established at the time of purchase and is typically not re-evaluated to determine if the vendor support level continues to be appropriate. An opportunity for cost reduction exists when vendor support levels for business applications are in excess of what the business needs.
<b>ADVICE</b>	Evaluate business application service contracts for coverage and response times and take action to align service contracts with the business need.
<b>OPPORTUNITY</b>	Expected savings range up to 50% for each business application vendor support contract.

## **E. Telecommunications**

### **13. Reduce Cell Phone Costs**

<b>BACKGROUND</b>	Cell phone usage typically dictates the type of cell phone plan. When usage increases beyond the level initially planned, the current cell phone plan may no longer be cost effective and another county plan may be more suitable. By re-examining cell phone needs, phone usage and plans, an opportunity may exist to reduce these charges.
<b>BUSINESS OBJECTIVE</b>	Moving cell phone users to an appropriate plan and disconnecting unused cell phones would result in savings.
<b>DISCUSSION</b>	<p>The county currently uses three cell phone vendors based on business requirements. Savings can result from one of the following actions</p> <ul style="list-style-type: none"><li>• Move AT&amp;T cell phone users who typically use more than 200 minutes a month on the “zero access” plan to a monthly fee plan.</li><li>• Move Sprint/Nextel cell phone users between two plans: Sprint Business Essential Plan for users over 250 minutes per month, and Nextel Large Business Advantage plan for users under 250 minutes per month.</li><li>• Move Verizon cell phone users to a “pool minute” plan between agencies where low end user plans are balanced against high end user plans, allowing high end users to access remaining minutes in the pool.</li></ul>
<b>ADVICE</b>	Evaluate cell phone usage against available plans and move cell phones to a different plan if savings are identified. Disconnect unused cell phones.
<b>OPPORTUNITY</b>	Savings of up to 20% are available by moving cell phone users to a plan that better matches their usage. Additional savings can be achieved by disconnecting unused cell phones.

### **14. Only Use Master Contracts for Telecommunications**

<b>BACKGROUND</b>	When needs for specialized telecommunication services have occurred, at times individual contracts have been established to meet this need. The result is higher costs to the county for vendor and contract administration. An opportunity exists to achieve cost savings through volume discounts and multi-year contract terms when the county contracts as a single entity for telecommunication services.
<b>BUSINESS OBJECTIVE</b>	Using the county's telecommunication master contracts offers opportunities for savings from volume discounts.

<b>DISCUSSION</b>	Telecommunications when operated as a centralized service provides the lowest cost through enterprise price discounts. This includes specialized services such as automated call distribution and interactive voice response systems as well as phones lines used to meet a variety of needs.
<b>ADVICE</b>	Use the master contract services and solutions offered countywide by Telecommunications.
<b>OPPORTUNITY</b>	Using the county's telecommunication master contracts provides an opportunity to reduce costs through volume discounts.
<b>WORK FORCE AFFECT</b>	The contract administration burden is reduced when individual contracts are eliminated. Master contracts reduce work force effort for needed for procurement and contract negotiation.

## **15. Reduce Telecommunication Costs**

<b>BACKGROUND</b>	The county has over 15,000 telephone lines, 2660 pagers, and pages of listings in the white and yellow pages of the telephone book. All are result in charge monthly to the county regardless of use. Disconnecting unused lines at county locations outside of Seattle and at locations serviced by a PBX is one of several savings opportunities for agency telecommunication costs. Unused pagers and unnecessary directory listings are other opportunities to be examined.
<b>BUSINESS OBJECTIVE</b>	Reduce direct telecommunication costs by eliminating unnecessary telephone lines, pagers, and directory listings.
<b>DISCUSSION</b>	<p>There are several opportunities for analysis in the area of telecommunications. Savings opportunities include:</p> <ul style="list-style-type: none"><li>• Disconnecting unused phone lines in outlying areas,</li><li>• Reducing maintenance ports on agency PBXs,</li><li>• Canceling service for pagers and Blackberries that are no longer needed or are duplicated with other services, and</li><li>• Reducing directory listings through consolidation and elimination of telephone numbers listed in the white and yellow pages of the telephone directory.</li></ul> <p>For directory listings, multiple listings with the same number maybe candidates for consolidation. Agencies that use an interactive voice response (IVR) system to direct the caller to the appropriate number may be able to have a single listing with the number of the IVR.</p>
<b>ADVICE</b>	Evaluate telecommunication usage for telephone lines, pagers, Blackberries, and directory listings. Work with Telecommunications to



reduce costs as appropriate.

**OPPORTUNITY**                      Disconnecting unused services could save the county at least \$75,000.

## **F. Others**

### **16. Standardize on One Help Desk System**

**BACKGROUND**                      There are many Help Desks in the county, each with their own hardware, software and application licensing requirements and costs.

**BUSINESS OBJECTIVE**              The Executive Branch will standardize on one Help Desk system and existing agency systems will not be needed in 2009.

**DISCUSSION**                        IT Reorganization will implement one Help Desk application and establish a standard set of processes and procedures for Help Desk staff in the Executive Branch to use in 2009. Existing agency level help desk hardware and software will be replaced by the system that IT Reorganization establishes as the standard.

**ADVICE**                                Do not fund agency Help Desk new/upgraded software, hardware, and hardware maintenance.

**OPPORTUNITY**                        For agencies that have Help Desk functions, including hardware, software, and applications, costs will be reduced by standardizing on a single Help Desk system and function, and savings of \$1,500 - \$10,000 can be realized.

### **17. Reduce Mainframe Costs**

**BACKGROUND**                        The mainframe computer runs many software products and business applications. Over time the need for these software products and business applications may have changed. There is an opportunity to evaluate whether each still meets a business need and to reduce costs by eliminating ones that are no longer needed.

**BUSINESS OBJECTIVE**              Aligning mainframe services to what is needed by the business and removing software products and business applications will help to reduce mainframe costs.

**DISCUSSION**                        Users of the mainframe are migrating to server based technologies.

This leaves the fixed cost of the mainframe infrastructure to be share by a smaller pool of predominately CX agencies at a significantly increased rate. Opportunities to reduce mainframe costs need to be examined.

**ADVICE** Inventory, evaluate and recommend cost reductions for the mainframe computer, including retiring applications and associated software products.

**OPPORTUNITY** Costs can be reduced by ending support for mainframe applications and software products that are no longer needed by all agencies in the county.

**WORK FORCE AFFECT** The need for work force is reduced when the number of mainframe applications and software products to be supported is reduced.

## **18. Explore Reducing Licensing Costs**

**BACKGROUND** Application licenses are typically purchased up front. A type of application, known as open source, does not require a license to be purchased to use it. The trade off is that support for the application is provided by internal staff or is purchased from another entity. Moving from licensed applications to open source applications offers an opportunity to reduce costs as long as the open source application can meet the needs of the business and not significantly increase support costs.

**BUSINESS OBJECTIVE** Reduce license fees paid to vendors.

**DISCUSSION** Open source software is an alternative to purchasing licensing. Open source applications are available to replicate all desktop application software currently purchased from vendors. Administrative costs can increase when open source applications are implemented, so its best use would be when the entire county moves to open source for desktop applications or small work groups use it for specific applications not needing administrative support.

**ADVICE** Weigh the merits and benefits of using open source software against business needs and the objective to reduce costs.

**OPPORTUNITY** Use of open source for software and applications would reduce licensing costs by the purchase/upgrade cost of the software and applications to be replaced.

**WORK FORCE AFFECT** There would be an increase in training and support for technology and business personnel when moving from existing applications to open source applications.

## 19. Defer Low to Medium Priority Technology Projects

<b>BACKGROUND</b>	Technology projects that at one time appeared to have high business value may not still retain that same value today. Evaluating the value to the business of existing and proposed technology projects is the first step in confirming project priorities.
<b>BUSINESS OBJECTIVE</b>	Focus resources in 2009 on only high priority, high business value technology projects.
<b>DISCUSSION</b>	Staff, fund and manage technology projects that bring the highest value to the business and are the highest priority for completion. Ensure successful completion of these within scope, schedule and budget.
<b>ADVICE</b>	Defer low to medium priority and limited business benefit technology projects until 2010.
<b>OPPORTUNITY</b>	Better use existing funds by shifting them from existing projects that are not high priority to projects that are identified as being high priority and of significant business benefit. For existing capital funded projects that are no longer high priority, return funds to the funding source or receive PRB approval to re-program the funds.

## 20. Reduce Need to Travel through Technology Alternatives

<b>BACKGROUND</b>	In person meetings are often the best way, and sometimes the only way, to conduct business activities. In the past, in person meetings have required travel to locations out of the area. When travel restrictions are in place, there have been only two choices – most likely not go, or struggle to get an exception to the “no travel” restriction. Today technology offers possibilities to participate as if you were there while you stay here.
<b>BUSINESS OBJECTIVE</b>	Reduce the need to travel through use of technology alternatives that allow a “face-to-face” experience using the county’s network
<b>DISCUSSION</b>	Technology tools are available that simulate the in-person experience by integrating audio, video and interactive elements delivered over the network. Examples of these include Ericcson ViPR video conferencing, Cisco Telepresence, Skype, Microsoft Net Meeting, and Cisco Webex. These tools provide a variety of opportunities for ways to participate in meetings that in the past required travel.
<b>ADVICE</b>	Use voice-video conferencing technology to reduce travel costs.
<b>OPPORTUNITY</b>	Costs for lodging, food, transportation and conference room facilities can be reduced through the use of technology.

**WORK FORCE  
AFFECT**

Some assistance from county technology staff may be needed to setup these technologies.

**Notes:**

(1) Costs for shared central IT services, such as email and the network, will not automatically decrease with a reduction in agency staffing and/or service levels. Agencies using these services will continue to share in the maintenance and support of these central IT services.

(2) IT Reorganization will look at fixed costs for possible reductions including all items identified in this document and the IT Reorganization initiatives.

## Section 2: Department Findings Related to the Advice

Departments are advised to use the form below to submit the results of their validation of the above opportunities to David Martinez, CIO and Steve Fields, Budget Office, during the week of May 12<sup>th</sup>. The CIO and the Budget Office will review the proposed actions to ensure there are no impacts on other agencies.

<b>DEPARTMENT:</b>		
<b>SUBMITTER</b> (Primary Coordinator For Agency)		
<b>OPPORTUNITY</b>	<b>PROPOSED ACTION</b>	<b>PROPOSED SAVINGS</b>
1. Defer Equipment Replacement (Desktop Computers)		
2. Have No More Than One Computer Per Person		
3. Enforce Power Management		
4. Defer Equipment Replacement (Servers)		
5. Reduce Computing Infrastructure Costs		
6. Reduce Network Access Infrastructure Complexity		
7. Explore Consolidating Database		
8. Reduce Printing Costs		
9. Reduce Color Printing and Copying		
10. Obtain Volume Discounts through Multi-Year and Master Contracts		
11. Reduce Vendor Support Costs (Equipment)		
12. Reduce Vendor Support Costs (Business Applications)		
13. Reduce Cell Phone Costs		
14. Only Use Master Contracts for Telecommunications		
15. Reduce Telecommunication Costs		
16. Standardize on One Help Desk System		
17. Reduce Mainframe Costs		
18. Explore Reducing Licensing Costs		
19. Defer Low to Medium Priority Technology Projects		
20. Reduce Need to Travel through Technology Alternatives		